## **FOREWORD**

The Federal Emergency Management Agency (FEMA) is pleased to have sponsored the preparation of this publication on seismic strengthening of existing buildings. The publication is one of a series that FEMA is sponsoring to encourage local decision makers, design professionals, and other interested groups to undertake a program of mitigating the risks posed by existing hazardous buildings in the event of an earthquake. Publications in this series are being prepared under the National Earthquake Hazards Reduction Program (NEHRP) and examine both the engineering/architectural aspects and societal impacts of seismic rehabilitation.

FEMA's existing buildings activities are structured to result in a coherent, cohesive, carefully selected and planned reinforcing set of documents designed for national applicability. The resulting publications (descriptive reports, handbooks, and supporting documentation) provide guidance primarily to local elected and appointed officials and design professionals on how to deal not only with earthquake engineering problems but also with the public policy issues and societal dislocations associated with major seismic events. It is a truly interdisciplinary set of documents that includes this handbook of techniques as well as a companion volume presenting a methodology for conducting an evaluation of the seismic safety of existing buildings.

With respect to this handbook, FEMA gratefully acknowledges the expertise and efforts of the Building Seismic Safety Council's Retrofit of Existing Buildings Committee, Board of Direction, member organizations, and staff and of the members of the Technical Advisory Panel and URS/John A. Blume and Associates management and staff.

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